

Wireless Charging PAD VWPEN16C-30ACAPB

■ Features

15W Wireless charging Pad for fast charging two devices at free-position

Compatible with the Qi certification

Multi-coils design for a large free positioning area

High Efficiency of wireless charging module

Fully compliant with CISPR-25 (15W)

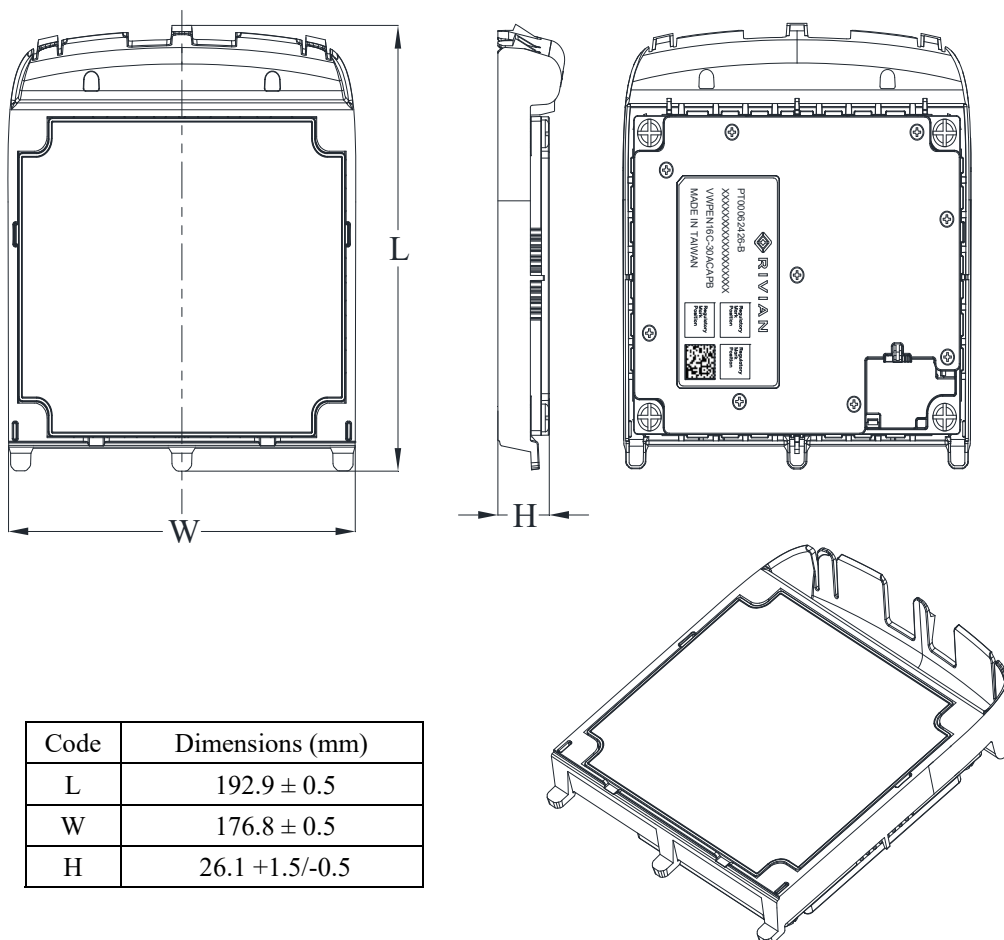
Supports CAN interfaces

Support FOD including

■ Application

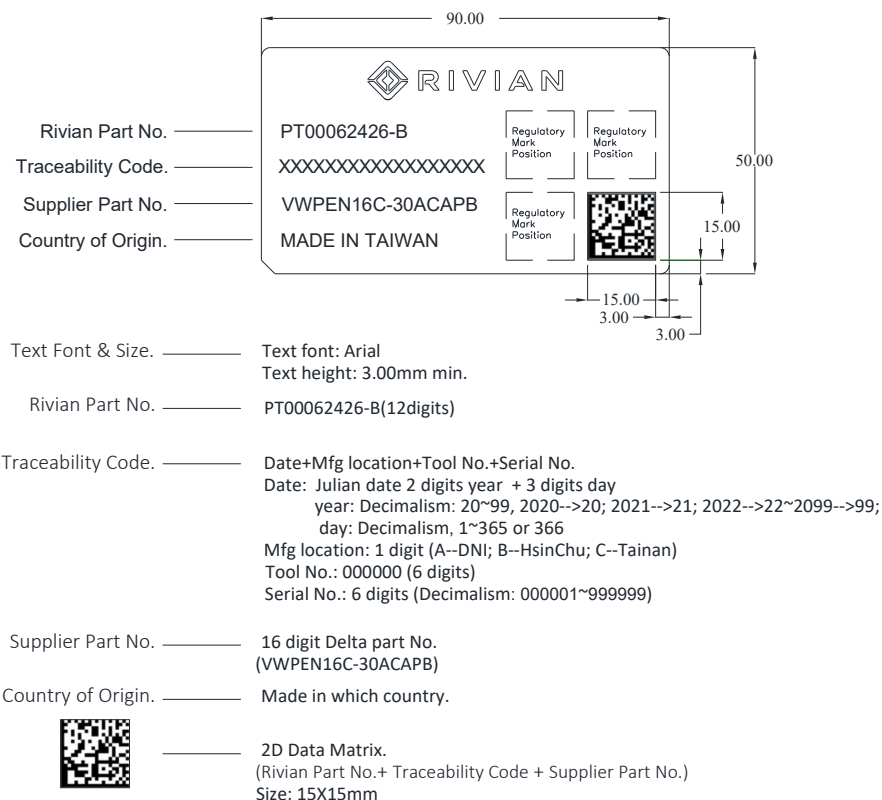
Automotive Wireless Charging

■ Outline Dimensions



Code	Dimensions (mm)
L	192.9 ± 0.5
W	176.8 ± 0.5
H	$26.1 +1.5/-0.5$

Product label



■ VWPEN16C-30ACAPB Specification

Input Specifications

Parameter	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
Input Operating Voltage	VIN	Measured position: input connector	9	13.5	16	V
Transient Voltage Excursions MAX	VIN MAX	The voltage may deviate VIN MAX +2.0VDC for up one (1) second due to load events			18	V
Transient Voltage Excursions MIN	VIN MIN	The voltage may deviate VIN MIN -2.0VDC for up one (1) second due to load events	7			V
Standby Power	Psb	VIN= 13.5V			1	W
Input Operating current	Icc	VIN= 9V			5.6	A

Output Specifications

Parameter	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
Recommend Charging Distance Range	D	VIN = 13.5V, from WCM interface surface to Rx coil surface, Rx is on the center of Tx coil	0		5	mm
The Number of Devices	Qty	The device are charged at the same time			2	Pcs
Support Max Power for Rx	Pout	VIN = 13.5V, Rx output power			15	W

Protection

Parameter	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
VIN UVP Threshold	Vuv	Pout = 0W shut down, auto recovery	6.2	6.5	6.8	V
VIN UVP Recovery	Vuv R	Pout = 0W Recovery voltage from UVP	8.7	9.0	9.3	V
VIN OVP Threshold	Vov	Pout = 0W shut down, auto recovery	17.2	17.5	17.8	V
VIN OVP Recovery	Vov R	Pout = 0W Recovery voltage from OVP	15.7	16.0	16.3	V
UVP and OVP Delay	Delay		1.5	2.0	2.5	s
FOD Detection	FOD	Meet Qi spec				

Over Temperature Protection	OTP	Temperature at the top of coil; Adjusted by test result shut down, auto recovery		60		°C
Over Temperature Protection Recovery	OTP_H			50		°C

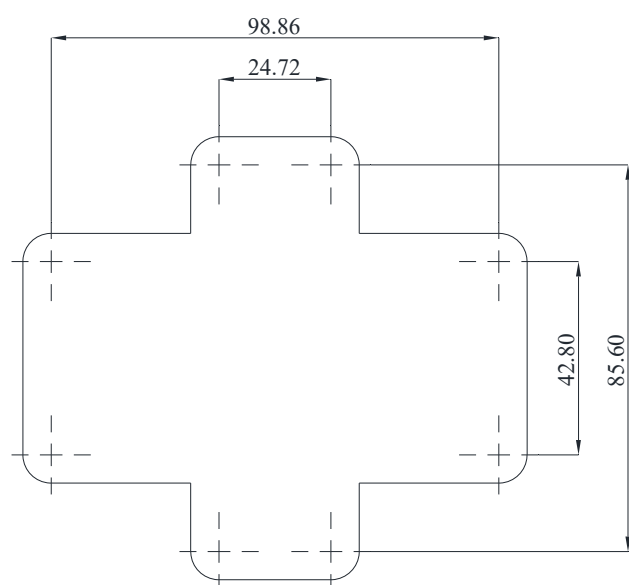
System

Parameter	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIS
The Operating Frequency	f	VIN = 13.5V	126.7	127.7	128.7	kHz
Efficiency*(1)		VIN = 13.5V, Po = 15W, Charging distance = 0mm, on the center of top layer coil		68.0		%
Ambient Temperature Range for Performance	Tcd	Performance: all functions are workable	-20		40	°C
Ambient Temperature Range for Operation	Top	Operation: power on, may at protection status	-40		85	°C
Storage Temperature	Tst		-40		100	°C
Outdoor Air Pressure	Pair		57		103	kPa
Acoustical Noise (AVG)		Peak value; 20Hz to 20kHz, 1m test distance		24.7	32.4	dBA
Cooling		Force air cooling (with fan speed control)				
CAN		Available				
Qi Compliance		Qi v1.2.4				

Parameter	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
Software Update		CAN				
Weight		<0.9kg				
Degrees of Protection Provided by Enclosure		IP5k2				
Active zone *(2)		Test 8 points to confirm the chargeable area. (Charging distance = 0mm)				

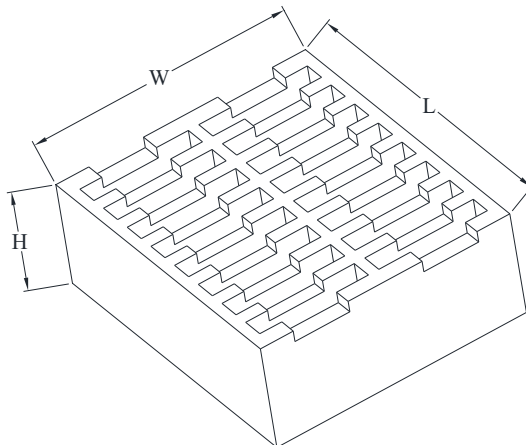
*(1) Reference efficiency

*(2) Reference active zone



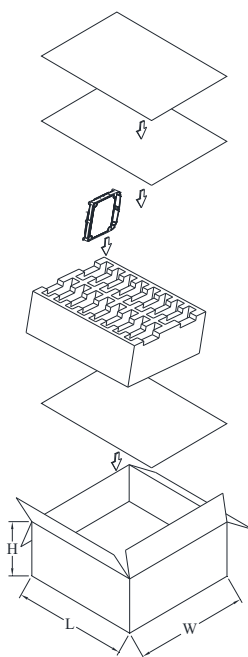
■ Packaging

(1) Tray dimensions



Dimensions (mm)			Pcs/Tray
L	W	H	
535	455	190	16

(2) Tray and Carton



Quantity: 1 Pcs/Tray
16 Pcs/Carton

Dimensions (mm)			Pcs/Carton
L	W	H	
560	480	240	16

■ Warning

This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radioexempts de licence.

L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

FCC Statement

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 18 of the FCC Rules.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.